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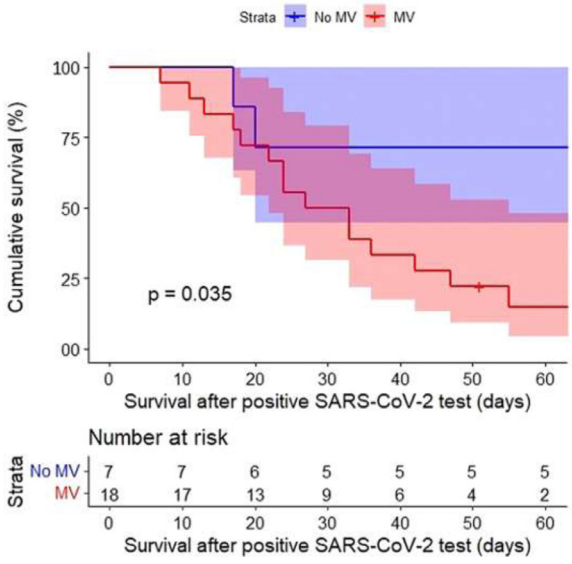
Figure 1: Kaplan-Meier survival probabilities in the study cohort stratified by mechanical ventilation (MV).



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Early Outcomes of Lung Transplantation for COVID-19 Related Lung Disease. Single Center Experience

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Purpose: Lung transplantation (LT) is a lifesaving treatment for Covid-19 related lung disease with early outcomes similar to other indications.
Methods: Seven patients underwent LT for Covid-19 related lung disease at our center: 5 for ARDS and 2 for IPF exacerbation post SARS-CoV-2 infection.
Results: Seven patients (5 men) with single organ failure underwent bilateral LT. Median age was 47 years old. All ARDS cases had poor lung mechanics on invasive mechanical ventilation with radiographic evidence of lung fibrosis: pneumatocele, GGO, consolidations, subpleural reticulations and traction bronchiectasis. vvECMO was bridge to transplant in 5 cases (bridge to recovery in 2). Median ECMO duration for ARDS was 32 days (range 7-99). Median time to LT from Covid diagnosis was 59 days (Q1-IQ3, 54-62). Two patients were post-partum women with ARDS. Explanted pathology showed UIP, DAD, diffuse hemorrhage and one case of fibrosing NSIP. Pulmonary hypertension was seen in 4 cases. One patient did not survive. Organizing pneumonia and granuloma were present in this patient. Most ARDS patients were unable to tolerate lower sedation and consent by a substitute decision-makers was obtained. Post operative ECMO decannulation was possible in all cases. Induction, maintenance immunosuppression and antimicrobials were standard for our program. Donated grafts were from deceased brain death donors and negative for 2019-nCoV. Rehabilitation potential and strong social support were absolute inclusion criteria. All survivors have excellent lung function.
Conclusion: In the USA, over 130 LT have listed Covid-19 as the diagnosis indication. Although Covid-19 ARDS makes up for the majority of these LT, other diagnosis are post Covid pulmonary fibrosis and underlying fibrosis with SARS-CoV-2 induced exacerbation. LT for ARDS poses several challenges and is reserved for the minority of carefully selected patients dependent on extracorporeal life support. As others have reported, good short-term survival is described.

Characteristics of the transplant recipients

	Age (years), sex	Comorbidities, ABO	BMI kg/m2	Indication for LT, LAS	Covid-19 diagnosis to LT, days	vvECMO to LT, days	Follow-up, days
1	58, M	IPF, OSA, O+	24.4	AE-IPF, 45.6	62	1	180
2	71, M	IPF, HTN, DM, O+	24.4	AE-IPF, 84.6	50	6	230
3	47, M	O+	33.5	ARDS, 88	62	15	115
4	37, M	Obesity, asthma, A+	36.9	ARDS, 89.7	114	99	Dead
5	61, M	O+	26.9	ARDS, 85.7	59	14	180
6	31, F	post-partum, ulcerative colitis, A+	37.5	ARDS, 87.2	57	25	270
7	35, F	post-partum, obesity, asthma, A+	37.5	ARDS, 87.7	54	7	20

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Characterization of Lung Transplant COVID19+ Patients and Mortality Outcomes

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Purpose: The aim of this study is to report the characteristic and mortality outcomes of lung transplant patients that contracted COVID19.
Methods: A retrospective chart review was conducted of lung transplant recipients who tested positive for COVID19 from 6/1/2020 to 9/1/2021.
Results: Forty-five patients were included for mortality incidence review with 2 patients who were admitted to outside facilities during their COVID diagnosis with limited treatment data. Mortality incidence was 15.5% with cohort mean age of 62 (±11.7). Median time from transplant to infection was 1281 days (223-5800). Five patients required O2 and n=5 were intubated with 80% mortality (n=4) among those intubated. Baseline demographics of age, gender, indication for transplant or race were not statistically different among patients that died vs those that survived. Vaccinations (2 doses) prior to infection were evident in n=35 (77.8%) of the patients. Maintenance immunosuppressants and covid therapies (table 1) did not have an associated difference in survival from infection. A significant association with mortality was found from the time of reported

Table 1.

Characteristics (N=45)	Survived (n=38)	Died (n=7)	P-value
Indications, n (%)			1.0
COPD	10 (26.3)	2 (28.6)	
IPF	16 (42.1)	3 (42.2)	
Male, n (%)	25 (55.6)	4 (5.7)	0.67
Bilateral, n (%)	30 (78.9)	4 (4.3)	0.34
Diabetes, n (%)	21 (55)	3 (42.9)	0.69
Race, n (%)			0.78
White	23 (60)	6 (85)	
Black	7 (18)	1 (14)	
Hispanic	6 (15)	0	
Other	2 (5.3)	0	
Time from transplant to infection (days), mean (SD)	1805 (1350)	2105 (2023)	0.62
Vaccinations prior to infection, n (%)	29 (64.4)	6 (85.7)	0.51
Maintenance immunosupression FK+MMF, n (%)	25 (65.7)	5 (71.4)	1.0
MMF daily dose (mg), mean (SD)	1000 (103)	900 (187)	0.69
COVID Therapies			
Remdesivir+dexameth	13	4	0.14
Casirivimab/imdevimab	21	2	0.39